PRICE LIST (prices checked 20 April 2004)

New:

PC-PSU with supply for 2 Floppies and MB02	36,00 €
MB02-Printerlead	13,00 €
Proface AT Extern (Interface for connecting PC-Keyboards to Spectrum)	69,00 € KS
Proface AT Intern (internal interface)	62,00 € KS
Melodik AY-Soundbox (unboxed)	24,00 € KS
+2 Cassette recorder	36,00 €
Floppy Disc drive (1,86 with MB02, 720k with Opus, 780k with +D) Please specify	24,00 €
PSU for +2A/B and +3 or PSUI for +2 (also 48k and 128k) Please specify	29,00 €
FDD lead for 2 drives	4,00 €
Multiface 128 (works also on 48k Spectrums	26,00 €
Dust Cover 48k+/128k	8,00 €
Plus 3 Tapelead	9,90 €
Normal Tapelead	3,00 €
Spectrum +2 Lightpen	36,00 €
Spectrum +3 Lightpen	27,00 €
Phaser Gun with Software (Tape or +3)	19,00 €
SCART-Monitor cable (choose for 128k/+2 or +2A/+3)	25,00 €
VGA-BOX (connect Spectrum 128/+2 to VGA monitor)	49,00 €
VGA-BOX Multi purpose (Connect any PC monitor to Spectrum 128/+2)	79,00 €
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Keyboard membrane 48k	11,00 €
Keyboard membrane Spectrum +/128k, new quality, not aging	21,00 €
Spectrum keyword stickers	8,00 €

Used:

Sinclair ZX Spectrum 128k, complete with all cables		129,00 €
Sinclair ZX Spectrum +2, complete with all cables		79,00 €
Sinclair ZX Spectrum +2A, complete with all cables		69,00 €
Sinclair ZX Spectrum +3, built in 3" drive, complete with all cables		99,00 €
Sinclair Spectrum 48k (Gummy), complete with all cables + Introduction Tape		64,00 €
Sinclair Spectrum 48k +, complete with all cables + Introduction Tape		64,00 €
+3 Drive (tested)		29,00 €
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Microdrive		25,00 €
Wafadrive		39,00 €
Opus Discovery Diskinterface with 1 x 720k Drive (new ROM)		119,00 €
Joystick interface	1-Port 3,00 €	2-Port 11,00 €
Joystick (many different)		2,50 €
Sinclair SJS-Joystick (+2/+3)		6,00 €

Consumables:

Microdrive Cartridges (ex-software)		3,50 €
Wafadrive Cartridges	16K= 7,00 €,	32K= 7,50 €

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"Oct: 1" in the menu area. We'll soon fix that -

Figure 1.6

symbol shift and a number from 1 to 8 will move us to another octave, and some trial and error reveals that C-5 would be a good note to start our tune on. Armed with that starting point, we can go storming ahead with the rest of the pattern, picking out our notes on the left and our dat-dahs on the right:

00 C-5 1000	08 A-5 1000
01 --- 0000	09 --- 0000
02 C-5 2000	10 A-5 2000
03 --- 0000	11 --- 0000
04 G-5 1000	12 G-5 2000
05 --- 0000	13 --- 0000
06 G-5 2000	14 --- 0000
07 --- 0000	15 --- 0000

Now we can leave edit mode and check out our handiwork with the 'Pattern' button - the one directly above 'Play' - which plays the currently viewed pattern. And lo, we're rewarded with the first line of Twinkle Twinkle Little Star, played in an infinite loop at breakneck speed. Oops. Better go to 'Other', 'Delay change', and choose another speed setting - higher numbers are slower, because it's the number of 1/50-second frames to stay on each row. We find that 12 (or C, for those of us with 16 fingers) is a good choice.

After that introduction, you should now have no trouble going ahead and entering the remaining two lines of the song into patterns 2 and 3. The whole song stays neatly within octave 5, so no further faffing around with symbol shift should be required.

And so to put it all together. This is where the 'position' and 'pattern' sliders in the top left of the menu area come in. The user interface for these

can be a bit perplexing the first time you try it, but you've just got to remember that positions are the timeline of your song, and the 'position' slider will let you step forward and backward through that timeline. As you do so, the two indicators beneath it, 'pattern' and 'height', will change to show the settings you've chosen for that position. Height can safely be ignored for today - we'll leave it on zero. Pattern indicates the pattern number we want to play in that position - as previously decided, we'll do this in the sequence 1, 2, 3, 3, 1, 2. So, move to position 1 and set the pattern to one; move to position 2 and set the pattern to two; you get the idea. The song is six positions long, so unsurprisingly enough we need to set the 'length' slider to 6.

At last, we're done. Scroll back to position 1, and select play. Congratulations, you've written your first Soundtracker tune!

But let's not rest on our laurels. We still have two whole channels completely untouched, so we can add a bit of harmony. You'll be pleased to know that the second and third columns of the tracker display can be filled in in exactly the same way as we've just done with the first. A bit of glockenspiel (or something approximating to it, at least) would go down well, and sample 1 on its own will do the job. Rather than entering a '1' against each note, you can save a bit of work by moving the 'sample' slider to 1, which will make Soundtracker fill it in automatically for every note that you enter. Alternatively, another trick for the lazy is to leave the sample number at 0 for all but the first row - this tells Soundtracker to use the last sample played. It's best not to rely on this too much, though, because you tend to lose track of which sample that was, and end up turning your lovingly crafted melodies into frantic drum solos. Anyway, the following notes are what I came up with for the accompaniment - one note to each row this time (now you see why we left those spaces earlier):

Pattern 1: C-4, G-4, E-4, G-4, E-4, C-5, G-4, C-5, F-4, C-5, A-4, C-5, E-4, C-5, G-4, C-5

Pattern 2: D-4, C-5, G-4, C-5, C-4, C-5, G-4, C-5, G-3, G-4, F-4, G-4, C-4, G-4, E-4, G-4

Pattern 3: E-4, C-5, G-4, C-5, D-4, C-5, G-4, C-5, C-4, C-5, G-4, C-5, G-3, G-4, F-4, G-4

Much nicer, no? Perhaps you could add your own bassline to round the whole thing off. Next time we'll take a look at the more advanced features of samples, and bring in the rhythm section.

© 2004 Matthew Westcott

edit

Welcome readers old and new to ZXF magazine. Did you know there's now nearly a thousand of you? Crikey.

This issue, we report on the implementation of support for Sami Vehmaa's *ZXCF* Compact Flash interface in two emulators: *Fuse* and the very last version of Ramsoft's *RealSpec*. It's really good news that this excellent interface is receiving emulation support and you will find a short tutorial on how to set it up in RealSpectrum on page 21.

I received my own ZXCF interface a few weeks back and I must say I can't remember ever plugging something into the back of my Spectrum that transformed it quite so radically. My *Plus D* interface in 1990 or thereabouts would be the closest I ever got to this I guess, but the Plus D is just a storage device like something (when a disk drive is connected, of course) and the ZXCF is so much more.

For starters, before you even go anywhere near the slot at the back with a Compact Flash card, the interface gives you an enormous memory boost. A whopping great 1MB in my case. Just like that. The interface's operating system, ResiDOS (written by +3e creator Garry Lancaster) allows you to access this memory straight away via its very own Task Manager program, which itself is called up in an instant at the press of the interface's NMI

button. Spectrum programs can be swapped in and out of the computer's 48K from the interface

RAM using the task Manager - up to 16 programs can be kept running together, in fact. The interface has its own internal battery (good for three years apparently, after which you'll need a friend with soldering skills to replace it) to power the on-board RAM, by the way; get half-way through a game of Scrabble, turn off the Spectrum, come back a week later and your game will be there waiting for you.

And when you do add in a Compact Flash card, of course, any of these programs can be snapshotted to it for permanent storage. Although actually that's the very least that's possible. The capacity of CF cards these days is almost limitless; using ResiDOS you can create as many partitions as you want for either files or swap data. *Swap data?* Well ResiDOS has been designed with the intention that one day people will write programs

specifically for it - to put all of that storage space to use within a game. Full motion video is Matthew WestCott's proposal for what you could do with it. And then there's sampled audio - think *Starglider 128* rather than *Ghostbusters*.

Better still in my opinion would be bigger games - not necessarily larger playing areas, you understand, but rather much more detailed ones. The need to rely on tiled graphics for walkabout games would be virtually eliminated, for example - every screen could be as complex as a loading screen if you wanted it to be. Text adventures could be supported by detailed graphics - perhaps even digitised photographs - rather than the spartan vectors we're used to.

These sorts of possibilities aren't going to appeal to all within the Spectrum community, of course, and we must accept that different people want different things from their hobby. For many programmers, for example, the challenge is increasingly to see just how much they can squeeze out of 48K; limitless memory simply doesn't interest. Also, the desire to write for a machine which can still be found in many households around the world is likely to be higher than the desire to write for a system owned presently by just a handful of people.

But the challenge is still a valid one. just what is the Spectrum capable of when memory is not an issue? Perhaps it's more of an artistic question than a technical one where games are concerned. Has the Spectrum really been explored graphically or have we just been fooled by the endless copies of a few ideas into thinking that all that can be done has been done? For a long time now I've felt there to be plenty of artistic styles worth

So, before we can start keying in a melody, we need a sample or two. However, for Soundtracker on the Speccy a sample is something slightly different, because we don't have the memory or processor power to play around with real sampled sounds. (Actually that's not strictly true - some trackers for the Spectrum based on sampled sound do exist, such as Sample Tracker and Morpheus. But these are of limited use, because you can't really do anything else at the same time - and besides, they're not what we're here to learn about.) The AY chip will, on the other hand, happily generate pure square waves all by itself - so for us, a sample is a graph of how the properties of the square wave vary over time.

The upshot of this is that the sample editor is probably the hardest part of Soundtracker to grasp, which is a bit of a shame as that's where we need to go first.

Select "Samp. Ed." from the menu. You're prompted to select a sample number - we can define up to 15 samples, numbered 1 to 9 and A to F. Press 1 to start creating a sample in the first available slot. You'll be presented with a pair of grids as in Figure 1.2.

The top grid defines how the amplitude (volume) of the note varies over time, otherwise known as
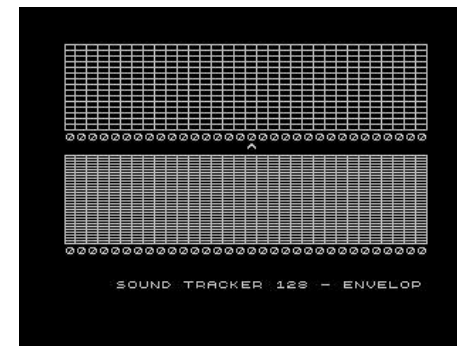

Figure 1.2: Sample editor

the envelope. This is the one we're most interested in at this stage. Each column of the grid represents one fiftieth of a second (one frame), which happens to be the fundamental unit of time for Spectrum trackers - at the lowest level, we squirt data at the AY chip once every frame. Machine code gurus will at this point be thinking "Aha! That means I can drop the music player into an interrupt routine, and then forget about it while I do something more interesting instead!" Everyone

else is free to mutter "Bah, in my day all we had were 10 PAUSE 1: RANDOMIZE USR player: GO TO 10. And we were bloody happy with it too!"

But I digress. What we're after is a note that starts off loud and fades away fairly quickly. Move the little arrow with O and P, and alter the height of each bar with Q and Caps Shift (note that the controls wrap around, so you can get a full height (i.e. full volume) bar by pressing Caps Shift to move the height below zero). Arrange the bars until you have a triangle shape like Figure 1.3. Note that we're only stepping the volume down on every second frame - this happens to produce a nicely resonant note. Feel free to try steeper or shallower slopes if you're curious.

Press 0 to hear the result. This only plays the sample up to the point where the cursor is sitting, so it would be a good idea to move the cursor to the far right first. You'll notice that we do indeed have something that starts loud and fades away,
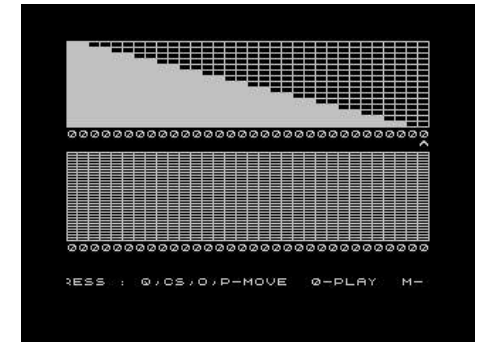

Figure 1.3: Triangular envelope

but there's a lot of white noise in there, like somebody blowing into a bottle.

That's where the lower half comes in - it controls white noise. Press Enter to hop down to the second grid. With the lower grid you can fiddle with the exact makeup of the noise in ways that I'll describe in a future lesson, but this time we just want to get rid of it completely. For this, we turn our attention to the row of zeroes along the bottom. [You were wondering about those, weren't you?] These are the 'mask' bits - setting a bit to 1 will mask out the noise at that point. The M key will toggle it on or off, and holding down P and M is a quick way to zip along the row flipping them all. Incidentally, the row of zeroes in the upper half does the same thing, but masks out the pure tone instead. Not what we want at all.

NEW

A-BIKE ON ITS WAY

>Sinclair unveils world's smallest folding bike

He's still at it; Sir Clive Sinclair revealed in July his latest attack on congestion. The result of a five year research partnership with Hong Kong's **Daka Designs**, the **A-Bike** will go on sale next year for around US $300 (£162). Folded, the bike takes up less than 0.03 cubic metres and folding or unfolding takes less than 20 seconds. It weighs just 5.5Kg - which is 2.5 Kg less than the nearest competitor - but it can support up to 112 Kg in rider weight. And although those wheels look tiny, Sir Clive promises they're no harder to peddle than any ordinary bicycle.

The unveiling took place in Singapore, a city that is used to mixed modes of transport; reportedly a number of groups have already approached the partnership regarding distribution.

If the venture is a success, the next step will be to develop an electric motor for the cycle, said Sir Clive, showing that he's not giving up on the dream he's nutured for the past twenty years. Go for it, Uncle C.

Reuters

MORE PLUGINS TO COME

>C64 and Sega Megadrive joysticks on the way

Christmas is a-comin'... And the treat in store for our good friends in the land of Commodore this year will be this fancy new C64 joystick containing no less than 30 classic C64 games, including the **EPYX** *Games* series and a number of **Hewson** classics, such as *Uridium, Cybernoid* and one of my own all time favourites *Nebulus*.

Expected to retail at around the £30 mark and due to hit the European high street in October, the **C64DTV** (Direct-to-TV) is being brought to the market by new Commodore brand owners **Tulip.** Learn more at *www.commodoreworld.com*

Meanwhile, fans of the 16-Bit Sega Megadrive are also due for a treat; a similar, plug-it-in your telly control pad in the proper Megadrive style is due to be released later this year by electronic games company **Radica,** again for around the £30 mark. It will contain six full Megadrive games: *Sonic The Hedgehog, Golden Axe, Altered Beast, Dr Robotnik's Mean Bean Machine, Flicky,* and *Kid Chameleon.*

No news as yet of a similar offering for the Spectrum. ZXF has written to **Amstrad** asking if anything is planned, but so far has yet to receive a reply. For the moment, at least, no news will have to be treated as good news.
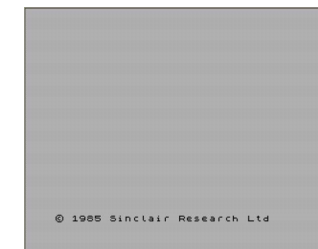

© 1985 Sinclair Research Ltd

The Spanish 128 lacked the menu system developed for the British version of the machine.

LINE: 1 COL.:   1 WRAP ON
MODE   INSERT

It had a built-in text editor, available by typing EDIT A$ at the BASIC prompt.

letter with more developed program editing capabilities built in. There was also a calculator. The Spanish machines shipped with a seperate numeric keypad that facilitated the editing and the calculator functions. Quite neat. It was also far more expandable with RGB monitor, MIDI, and RS232 connections.

So why wasn't this machine launched in Sinclair's home territory? At an estimated £170-£200 it would have been competition for both the Spectrum+ AND the now discounted £200 QL. Sinclair still desperately wanted the QL to be a success and didn't want to do anything that would make that less likely. Sinclair also still had a veritable truck load of Spectrum+ machines that needed selling - and they wanted those off the shelves at the expense of the new baby. Quite simply, it was a cynical, strategic, marketing ploy.

Sinclair lives to fight another day...

Phew, it was over. A traumatic year draws to a close on a relative high. The launch of the 128 and the improving sales of the QL following its drastic price cut must have made for a reasonable amount of optimism going into the Christmas and New Year period. Sinclair Research was still in business and with so many microcomputing companies going to the wall over the last 12 months maybe that was the biggest achievement of all?

1986 will be covered in ZXF09......

new MEDIA

SPECTRUM DIAMOND

>Matthew Smith documentary

The look of nostalgia. You'll find plenty more of that in this well-crafted documentary, online at **Classic Computers Online**. Made for an Italian TV audience, **Spectrum Diamond: The Myth and legend of Matthew Smith** features an endless lineup of talking heads gazing into that distant spot over the interviewer's left-hand shoulder where Willy dances once again. Most of the 50 minute film is in English with Italian subtitles, so the biggest obstacle to enjoying it is likely to be the download size: at a whopping great 400MB the **CCO** server quickly went belly-up and download times started to get quoted in days rather than hours. Thanks are due, then to **Matthew Westcott**, who stuck the download out until the end and then converted it into a **BitTorrent** (http://bitconjurer.org/BitTorrent/) file, which you can find at http://stuff.bluecanary.mine.nu/speccy /matthewsmith/

NOTCON '04

>Watch Gasman talk Spectrum

Billed as "an informal, low-cost, one-day conference on things that technologies were perhaps not intended to do," **NOTCON '04** took place on June 6th at Imperial College Union and was attended by **AY Rider/Demotopia** maintainer **Matthew Westcott.** At the event, Matthew introduced a good-natured audience to some of the goings on in the world of a computer long-forgotten to most of the delegates, presenting his **Loosing Victoria** demo and a rather impressive piece of ZX streaming video.

The good news is you can watch the presentation in full at **www.ejhp.net/notcon/** The text of the talk is also available online at **www.zxdemo.org/article.php?id=8**

then

RETROSPECTIVE... 1985

Matthew Harrodine continues his look at the golden years.

Introduction...

In this latest installment of RetroSpective, a year by year history of the Spectrum and Sinclair Research, the Sinclair roller coaster moves turbulently into 1985. Things had not been going well in Cambridge towards the end of 1984 and in the drama of the coming twelve months it didn't get much better as we'll see.

Market Forces...

The entire home microcomputer industry was feeling the pinch. In Europe, the US, and the rest of the world margins were being pushed tighter and there was more and more competition in a shrinking market. The advent of the affordable microcomputer had created a short lived boom, a spike, as consumers grasped the opportunity to own a personal computer. But once you'd got a computer, what then? You didn't need another one and so the situation was unsustainable. In the UK, Sinclair knew things were declining but at least it still commanded the majority share of the market. Unfortunately, Sinclairs' competitors also saw the decline and amidst financial insecurity resorted to almost any tactic to grab customers away.

Acorn fired the first shot in what would end up in a brawl inside a Cambridge bank. The guilty parties being Sir. Clive Sinclair himself and Acorn's Chris Curry, a former Sinclair employee. Acorn's own advertising agency had con- ducted some research to discover which of several manufacturer's machines were the most reliable. Acorn won, Sinclair lost. Sinclair hit back saying that the figures were not based on like for like sales. However, the final straw came when Acorn used the results in a

national advertising campaign and the fireworks ensued.

Within a matter of weeks though, Acorn couldn't sustain its financial position and 49.3% of the company was sold to Olivetti and a considerable program of downsizing began. Acorn would, however, rise again but that's a different story.

Acorn wasn't the only casualty of 1985, there were some fatalities too. Oric Computer Products failed completely and was placed into receivership, software distributor Tiger collapsed, and despite cutting the cost of its Spectrum modem by almost a third, Prism also failed. Currah (famous for its speech synthesizer) was absorbed into dk'Tronics and several smaller software houses and hardware companies either ceased to be or concentrated their efforts elsewhere.

Cost Cutting...

Prism wasn't the only company to indulge in cost cutting; they were all at it - even the big boys. Commodore halved the price of its Plus4 and the C16 could be had for under a ton meanwhile Atari's very competent 800XL was reduced to £129.99. This put the 800XL on a collision course with the Spectrum+.

So what about the new Spectrum? Well, it was selling steadily, almost healthily given the climate, and this despite a high number of faulty machines being sold to the high street stores. The power supply was dodgy and the keyboards had a tendency to fall apart but nevertheless it was still selling.

If Sinclair hadn't got Spectrum+ stock valued at upwards of £30M it probably would have been OK.

Sadly, it seems 'someone somewhere' over estimated Christmas sales and subsequently Sinclair over manufactured the machine.

It won't have helped that technology itself was on the move...

The New Wave...

In 1985, there was a new breed of machine on the horizon. Available now, albeit at a price, the 16 bit machines had arrived. The year saw launch of both the Commodore/Amiga 1000 and the Atari 520STFM. They weren't direct competitors to the Spectrum but they were a threat to the struggling QL. The new machines succeeded in delivering the QL's promise and that was just too bad for Sinclair and its much maligned QL. Consumers saw the future of the home micro, the QL couldn't compete and the Spectrum could only compete on price.

8 bit wasn't finished though, as we all know it faded away gracefully over a number of subsequent years. Yet, in order for the cheaper 8 bit machines to remain competitive, they had to be enhanced; and that is exactly what the industry did. Amstrad already had the 128Kb, 80 column capable CPC464 and added the CPC664 with built-in disk drive in April. In June, Atari launched the 130XE, an 8 bit ST look-a-like with 128Kb of RAM for only £170. Acorn added an extra 32Kb to its Model B to create the B Plus and within a year would have the 128Kb Master series computer. But where was Sinclair? It was strangely silent and trouble was brewing.

Sinclair becomes Maxwell's

⬛ ONLINE

ZXF NEWS

>New website; new book; free game

After months of messing about with it, the new ZXF website is finally online. It will probably appear on first inspection more of a tweaking and polishing than a complete redesign, but it's involved a fairly major overhaul, nonetheless.

First things first: the official web address of the site has changed and is now **www.cwoodcock.co.uk/zxf**. The old address of **www.zxf.cjb.net** is still valid and will continue to work for a while, but I encourage you all to use, bookmark and distribute the former, since this will avoid the rather nasty Gator installers that kept on popping up with the cjb URL. I'm really glad to say farewell to those.

The site features, amongst other things, the new **ZXPAW** area dedicated to **Gilsoft's** wonderful **Professional Adventure Writing System**. The **Sinclair Branded** site is still some way from anything aproaching completion, but as a taster there are links to the 1983 Sinclair Research Software and Peripherals Catalogue I PDF'ed back at the begining of the year. And those of you who miss the HTML version of the *1984* catalogue (which was part of the old ZXF site) can rest easy - the web pages will soon be republished at WoS by arrangement with Martijn.

ZXIF continues to have its own area in the new site. I know there haven't been any new ZXIF releases so far this year - I've been a tad busy in recent months - the label is not forgotten, however, and! work is continuing on ZXIF02 - '**43 minutes**'. In fact, since it's now a year since **Blink** - ZXIF's first adventure game - was released, I've moved this title into the public domain and it can now be downloaded for free as a TZX file either from the ZXF website or from WoS. You can still purchase a cassette version if you want that Real Cassette Feeling, however.

Last of all, there's a new area for **TZXF**, the ZXF-on-a-tape project that's

also got a way to go before it sees the light of day. But we're getting there.

The other main ZXF project since ZXF07, of course, is the new PDF ebook, **The ZX Spectrum on Your PC**. Published at the end of June, the book is targetted at ex-Spectrum users only now starting to look at emulation and wandering what it's all about. Despite what some of you might think, it is all rather bemusing to newcomers. Well, it took me a while to work it all out...

Available as a free 3.5MB PDF download (many thanks to **WoS** for hosting the file) and fashioned in the style of the old Granada Publishing books for the Specrum, the book is also available to

hockey goals are evident as your ball bounces around the large screen area. This could be really competitive and the game mode that starts those fist fights. Anyone who is concerned about my male persona can come round for a good slapping! BITCH.

There are various colour and speed modes available, and also double bat play where you control two bats. Each bat has an independent control one behind the other for additional play strategies and makes the whole game experience again after having fun playing single bat modes alone or with an opponent.

In conclusion

Excellent hardware programming as the colour techniques used and the smoothness of play response/ animation look like an old TV game. I feel I could whip out a Speccy and cassette unit and bathe in the beep.. bweeeeep load sophistication of my personal library of software :o) OOhhhhh PC PC PC PC PCEeeeeeeeeeeeeeeeeeeee ZilionGigaFlop Harddriskkkkkkkssss.

Play on emulation... also play on a Spectrum as the basic level of realised design in old times lead to big and impressive artistic works that still take us back to the magnificence of those little works of minimialistic artistry and exploration of more than tweny years ago. With the current activity of the Minigames competition and the releases of people like WSS and Cronosoft (*www.cronosoft.co.uk*) these little beginnings have begun from the old with interesting results continuing.

Oh, and the TV game has no sound, perhaps the TV it was running on had a broken speaker :o(

Also the WSS Team website has another couple of interesting free download games called **Wriggler** and **Change It** with demos and information that are of interest.

Feedback from the artists

Later in the day after sending an email to Pgyuri of WSS Team I received an excellent reply including some points of interest:

About TV-GAME:

This game has many special techniques but I think they aren't too interesting your readers. I pull out 3 things:

1. One of entry code is 1234. Why ? This is my respect Jet-Set Willy by Matthew Smith. Why again ? When I was young, I met Jet-Set at my grandparents. We loaded this game and - of course - we have no entry table. We tried to enter many times and imagine, on time we passed !!!!! 1234 was the L1 code. What a hazard ! We played with this game around 12 hours ... this was much exciting game after liked Manic Miner. Of course next weekend we couldn't enter this game, we tried around 20 times. 2 chances and load again. I was patient children.

2. A special inform just for your readers FIRST ! At the menu press SYMBOL SHIFT - CAPS SHIFT - V simultaneously. and turn on second bats to full enjoy.

3. It has 128K version which will be downloaded sooner - the orders take it on cassette.

Pgyuri

new

SIR ALAN SUGAR RECRUITS

>New BBC show to feature Amstrad boss

The BBC have chosen noneother than **Amstrad** boss **Alan Sugar** to take up the reigns of their new series **The Apprentice**, coming soon to UK TV. The programme is inspired, of course, by the hit US reality TV series of the same name in which **Donald Trump** took a group of hopefuls through their paces, firing one at the end of each episode until there was just one left... and the prize of a $250,000 job. From the look of things, Auntie Beeb has no intention of changing this formula one jot for the UK version; they describe Sugar as "champion of enterprise initiative and philanthropist extraordinaire."

NEW FACE PLATE PROJECT

>RWAP seek support for new batch of face plates

We all know about keyboard membranes, of course. Their demise on a regularly used Spectrum is as inevitable as Winter. Insofar as getting hold of new membranes is an issue, we're fortunate that, for the moment at least, they're quite easy to obtain (**RWAP Services** in the UK; **Sintech** in Germany). In fact, membranes manufactured in recent years are reported to be much more durable than their 1980s predecessors. From the Spectrum+ onwards, replacing a membrane was a simple matter of unscrewing a few screws, but for the original 48k model, however, replacing your membrane *and* maintaining a pristine face plate was a nigh-on impossible task. The initial approach taken by Sinclair to fixing the faceplate to the Spectrum, after all, was basically to glue it there. It would come off, but it would bend in the process. And so it is that many of our machines bare the scars of bent face plates.

New face plates do come around ocassionaly on **ebay**, but you can be certain there will never be one up for sale when you actually need one. Which is why **RWAP** are currently looking into the possibility of getting a whole new batch manufactured to sell from their site. If they go ahead with the plan, it could result in a load of tired old Spectrums being given a whole new lease of life.

Understandably, RWAP aren't all that keen to shell out for the cost of manufacture without some sort of confidence in the things actually selling once they're made, so they've set up a special guestbook for potential customers to sign at *www.rwapsoftware.co.uk/plates.html* - this will be their way of gauging the interest. If you would like to support the project, head over there now.

MORE EBOOKS

>49 type-ins from Hungary

Is this the dawn of a new era in type-in listings? Here we have not one, but two whole PDF books crammed full of listings - 49 of them between the two volumes. There's not much I can say about the programs since the program text and annotations are all in Hungarian, although it's certainly worth pointing out that the download for each book contains all of the games typed in for you and saved as Z80 snapshot files as well as the main PDF itself.

László Nyitrai is the author of the two books, totalling nearly 300 pages between them. They can be downloaded from the new books area of WoS's ftp site: **ftp://ftp.worldofspectrum.org/pub/sinclair/books/**

my quest for land and a hold on the region. From small starts the might of others is respected, but in light of the increase of the strength of our might and the way of our herats!

Another city taken to the north as planed, lost to red and now at level 2 taken by the might of my army. Ohhh it makes you want to reach for a beverage! Back in a while.... Off to the fridge... ee it's so nice and cold....

Shaping up for a epic battle of opposing forces

Leaving the battle running

After a day's play and writing the

game is opening up with this a 4K version without any development showing excellent promise. I, for 'I am me' is on the verge of defeat or great things with new technologies and increased fortune aound the corner. This I hope shows enthusiasm for an excellent game of 4K, and as a free download is worth while having read through this an introduction to the mechanisms of play to have a go.

I would like to see this game developed and Johnathan Cauldwell has said he will consider this if people are understandably enthusiastic. So far this is the longest review, showing the working of Johnathan's workings in code and well implemented devcies with yes, still 4K of RAM.

To sum up

Impressive coding of 4K that really has squeezed something from Mr. Cauldwell's brain that probably plopped out on the floor screaming like an alienesque movie moment. Play, it's free and again I continue to have excellent fun playing all these entries. Watch as things

continue, I will have a final piece in another issue when it's all done. The link is at the beginning with the introdution. Thankyou for everyone who contributed and contributes to the compotition including the team responsible.

Load
Coming soon

This is what it's all about: some fourteen years ago **Carl Nordlund** started work on a beautiful isometric walkabout called **Ragnar**. Then the **Sam Coupé** and military service came along and the project got shelved.

But now Carl has found and converted those old tapes and is currently dedicating his time to finishing the project. Excellent news. So far, the game looks amazing.

You can follow the game's progress online at: **www.demesta.com/ragnar/**

NEW TO THE SPECTRUM SCENE?

The essential sites you need to visit.

www.worldofspectrum.org
The cornerstone of the community: emulation, discussion, downloads and online gaming.

www.spectaculator.com; www.ramsoft.bbk.org; www.worldofspectrum.org/emulators.html
You'll be needing an emulator to play those games on...

www.the-tipshop.co.uk
More tips, hints and pokes for those games than you can shake a pointy stick at.

www.ysrnry.co.uk; www.crashonline.org.uk; www.sincuser.f9.co.uk
The online editions of all your favourite Spectrum magazines: YS, CRASH & Sinclair User.

http://raww.org/
Spectrum news from around the world. Constantly updated!

www.sinclairfaq.com
All your further Spectrum questions answered.

FIRST UK CGE HITS CROYDON

By all accounts, the CGE went rather well. Sponsored by Retro Gamer and attended by JSW superstar *Matthew Smith*, attendees are already calling for this to become an annual event. ZXF was unable to attend, but rather liked *Juice*'s css report, re-printed below with his permission. You can also read another excellent show report at http://raww.org

Here begineth the taleth of a short tripeth to a small suburb of London(eth)...

It was good fun, though the Expo had more of a retro-market feel, than anything else (that said, I'm not entirely sure what an Expo is meant to feel like:) The place was medium-full, and we got to stop and look/tinker with anything we wanted to. The stuff upstairs could have done with better signposting - a pointer to the MS Q&A, and the small market off to the left would have probably improved the traffic to and from those rooms...

There were plenty of arcade machines, and a fair number of stalls, ranging from Binary Dinosaurs "The Enterprise has fried it's power supply", to the Amiga CAPS society. The Repton people were there, giving away free demo CDs, Mame cabinets were scattered hither and thither, and Matthew Smith appeared in a suit and tie, thereby winning himself my "most unlikely thing I expected to see" award. I was half expecting a toga...

Said Hi to him, got a JSW tape autographed (though he was probably sick of autographs by that time; one of the stalls had collared him earlier). He was quite nervous in the initial Q&A session, but quite relaxed in a less formal situation. He did seem to enjoy it all.

Apart from that...

Bumped into Matthew Westcott, who I've decided is kinda like the Candyman. If someone at a convention says "Sinclair" five times in a row, he appears. Hopefully he'll never start waving any pointy nose-picking devices around, though.

We prodded a small kid off the C5 which was doodling around the main hall, and took over for a bit. On pedal-power only, because the owners had underestimated the speed of the beastie, and were afraid of totalling half the attendees. The lack of reverse made things interesting, especially when one of my friends headed towards an imaginary ramp...

The C5 stall also had a bizarre Spectrum mini-tv thingy, which none of us had seen before, shaped like a torch with the screen at the end of one side, rather than mounted in the front. Mucho tempting:)

Chatted for a bit with Witchy, over at his stall, as various things spluttered and sparked and generally did their best impression of an energetically-challenged parrot and he dived around in boxes searching for replacements and repair bits. Old computer kit is always fun to play with:)

Didn't see Lister, and completely missed the Oliver Twins. Did see people from Retrovision (will any CSSers be at RV 4.5/RV5?). Didn't go to the Tron showing, as it turned out to be tv+video, not a cinema+reels jobbie. We went home and watched the Uber-special-shiny DVD version on my big TV, instead:)

Much fun had, on a nice sunny day. Here's to the next one!

juice... happy to have met the Smith

After seeming eons of quiet from the lands

You soon begin to see that there really are a large number of opponents waving swords about like they know how to cut people into teany weany little peaces that mummy may not want to recognise. At this early stage can they really be that dangerous?

Horah! My initial army of two units has captured the enemy's city built too close for comfort. Now I can use the city toggle of 'O' and 'P' whilst in city mode '0'. Also I have built a mine on a hill next to my level 2 city and due to this have increased production points. After loading the unziped file and having to work it all out! it is begining to make good sence. Excellent little Johnathan people wandering around in 4K.

After setting a settler unit off down the map some number of squares I have built another city, at this time I have not discovered how far cities have to be from each other to be constructed. After spending my gold for some time on internal infrastructure I am not yet sure of effect, so I am investing 1 unit of gold in each of the areas of Infrastructure, Military and Culture. This I hope may encourage extra results and options. The gold is increasing as I now have 3 cities and therefore more gold.

Battle in foreign lands

ALLLAAAASSSSs!!! WW-Wooooowww and shame! Ohhh OHHHhhhh... the inhumanity of it

all... In battle my first loss after moving in to support a captured city and to battle. As the number displayed in conflict each with 5 in health and counted down to 0 whilst my oppenent stands. I of course will try and dispatch the foe with another unit near by.

Another fallen! Perhaps my warrior unit that nears from a level 2 city will offer better skills for the fight, and to honour the heart of those who fell brave in battle. A note, in in consideration of battle you scroll the screen a little you can see the level number of the enemy, this is useful stratagy as initially I sent in the units to see what damage they would do without realising the difference. Note also that your men need to be carefully marshalled as they display no such number.

More conflict!

Another death, yet the stronger foe was dispatched by my warrior of mightier skill. The next will be to regain the city lost to the foe that shows now in their colour. Retaken, more deaths and a weakened Warrior unit, this is no easy contest. A settler unit built a city that was not so wisely placed and although out of the

way of current conflict is slow in progress.

Project work

It appears that you're able to research projects in parallel; this could be due to having more than one city or the level of the city. You choose how the resource is spent by choosing from available options and then start again. I am Still investing in military mostly and I hope for more technologies soon.

After reading again the instructions I am continuing to favour the military investment hoping to turn the game still at its early stages to something more than the small band of people living in a small cluster of cities. The might of the enemy looms.

Blue settler

After fighting and being victorious at some cost you realise that the settler units are strong fighters as well as able to establish a city. The advantage to me in this case if I can kill the unit is that the city has been downsized to a level 1 city by the creation of a settler unit. Does this mean that it will produce weaker fighters?

A small boat! As I have a city placed by water, and have been investing I have the option to build a small carrier for one unit. This could prove most valuable as I am in an area of land on the coast of the land.

On the screen you see the level three city I have will I produce tougher fighters? The two warrior

Conflict

Out of the way...

new

ORSAM

>Second Spectrum/SAM show planned

The ORSAM 2004 Sinclair and Clones Computer Show will be on Saturday the 6th November at the Alec Bussey Scout Centre, off Rowington Road Norwich, Norfolk, England. Entry and parking are free. Map and travel info on the website.

I would like to thank all those who came to last years Spectrum and SAM event, and all who gave publicity. Those who could not come but wanted to, better luck this year. New this year, the show will include a Quanta QL Workshop, and varying coverage of other Sinclair and related computers and other products. Put faces to Internet names, sell your spare equipment, buy new retro things at sub ebay prices.

The show will start at 10am and end 4pm, traders will have an extra hour either way (i.e. 9am to 5pm). People and magazines are already enquiring about the show, which should be bigger than last year.

Message to Traders: Please can you book your free place now, so that we can give you advanced publicity, and any special product announcements for the show you wish to make.

More details and up to the minute information can be read on the show site:
www.speccyverse.me.uk/orsam/

Tarquin Mills

RANDOM FUN

>Randomseek added to Sinclair search engine

Feeling lucky? The latest improvement to the **Sinclair Infoseek** engine over at **WoS** is a lucky dip option. Click on 'pick a random game or text adventure' on the main archive page and a random game scoring at least five out of

ten and rated by at least three people will be chosen for you. Is there a better way to brush up on your game knowledge and at the same time murder what remaining spare time you have left in your life? ZXF thinks not...

ULTIMATE EDITORS

>Make your own maps

Ultimate fan **MatGubbins** has produced map editors for the classics **Nightshade, Gunfright** and **Martianoids** (although the latter he doesn't rate very highly, it would appear). The editors are Spectrum programs and all can be downloaded from his site over at **www.angelfire.com/retro/carcass/ index.htm** You'll need you own TZX files of the original games, of course.

ITALIAN FUN

>Gerard Sweeny tackles Italian hacks

As we know, the Spectrum was popular all over Europe. Apparently **Lo ZX Spectrum in Italia** (my Italian's non-existent, but I reckon I can work that one out) at **http://zxspectrum.hal.varese.it/** has over 1000 titles to download. Most of these, however, are versions of existing Spectrum titles which have been hacked open and had their text translated to make them accessible to an Italian audience. And also they were renamed, which is where the problem lies: if an Italian wants to track down tips for an old favourite, how do they find out what the original name of the game was so that they can search **www.the-tipshop.co.uk/** ?

Well as it happens, Mr Sweeny, that jolly pleasant co-maintainer of said website, wouldn't even think of letting his visiters exert themselves in such a manner, which is why he's taken it upon himself to identify the english originals of all of the 'Italianicized' titles. And would you

believe it - of the 1074 games he's downloaded he's already identified over 800 of them.

The remainder he's a bit flumoxed by. Which is where you can help out. Gerard's put together information on all of the unknowns outstanding on a web page at **www.the-ipshop.co.uk/ Italian/Italian_unknown.htm** There you can have a look at these titles and if you recognise any of them - well let Mr Sweeny know.

HELP THE VAULT

>Donations needed by preservation teams

Each update to the **World of Spectrum** archive represents many hours of work on the part of the tape and disk preservation teams. Quite apart from that, this work also costs them hundreds of pounds of their own money. At the moment there remains over 1700 unresolved titles to be properly archived, and when they do eventually appear at WoS, you and I will be able to download and play them for free.

The next update will add 300 or so titles to the archive if **TZX vault** maintainer **Steve Brown** manages to get hold of the funds needed to obtain some 30 titles that include 9 unlisted and 11 MIA (missing in action) games. Donations are also always needed by the STP and SDP (Spectrum Tape/Disk Preservation) teams.

969 copies of ZXF issue 7 have been downloaded at the time of writing. If every reader donated a pound to the cause, therefore, that would go a long way towards resolving a large number of titles. To do your bit for the greatest archive of 8 bit software on the planet, visit one of the following sites and follow the 'donate' links.

http://tzxvault.retrogames.com/

www.worldofspectrum.org/stp/

www.worldofspectrum.org/sdp/

READY!

question as you find it is not in consideration. I would like to see what Fikee could achive with more play.

B.A.R.F. (BATTLE AGAINST RIGELIAN FORCES) (4K) Dinu Cristian Mircea (aka GOC)

After ages of Galaxian clones and games like Space Invaders on the Spectrum some may initially wonder why. This impression quickly fades as you see the impressive implementation. The colour graphics move well above your cyan Startrek-like ship that has two kinds of laser pulse weapon. Like Space Invaders and Galaxian your ship picks off the enemy who advance quickly leaving you less time than you thought. Move back and forward utilising short and long range firing to pick off the enemy.

Still thinking a little of ....after ages of Galaxian clones etc... when level two starts. Level two is an excellent diversion that carries the gameplay. Flying attack platforms fire laser beams that weaken and destroy with swooping head piece like craft

and side drones firing as they descend. Anticipation and skill avoiding attacks can destroy the parts of the craft supported by short rapid fire as they swoop in their attack patterns. With the *woop wooopp* sound effects superbly pitched, the animation and graphics are well drawn, seeing an excellently defined 4K environment.

Stage three is a superbly attempted vortex level where your (TM) Paramount-like spacecraft is viewed from the behind, overhead shortened view as you fly into the vortex with the enemy craft circling out. This is a quite different level as you find yourself circling around, avoiding the enemy and trying to alternate between your firing tacktics to pick off the craft. Some appear to be impenetrable to your shots. Picking off craft where you can avoiding their fire ends the level. A tricky diversion.

At times I was aware that this is a 4K game whilst being diverted by the challenge of the game play. Even on my emulator (full screen) the game opened up to a really excellent little environment. Level four is the final level, although the game continues on

from the first. I was immediatley attacked by the guardians of a large flying platform like craft that fired rapidly down with the craft itself. The platform fires a large laser beam from its centre opening destroying one of your 5 shields on contact. (Each level has 5 shields)

After absorbing numerous shots a carefully anticipated shot at the centre mouth just before firing destroyed the target and ended the final level. My immediate reaction was that it had been a fun challenge from a 4K game that was superbly implemented. It is interesting to note that the plot lines and thoughts of the entrants of the competition are increasingly amused and of good comedy.

I would like to see this game developed along the strong lines allready shown as the 4K game shows simple and excellent devices within its complete form and coding. An epic of teany space exploration as the playability was so developed. Dinu Cristian Mircea's 2nd minigame that I have seen leads me to hope to see more of his work developing. An expanded release would be nice to see.

NEW EMULATORS

SPIN

Version 0.50 by SPIN Dev Team; www.zxspin.co.uk

It's here at last! The fifth major version of **SPIN** is finally available for download and by jove it's a corker!

ZXF last reported on SPIN 0.5 in issue 4 (spring 2003) - since then co-author **Paul Dunn** has spent a lot of time concentrating on the development of his superb program development tool **BASin**. It didn't leave a great deal of time for SPIN 0.5, although various comments made on discussion forums over the last year have indicated its development was still going in the background.

SPIN 0.5 is an almost complete rewrite of the emulator, some-thing that's immediately apparent when you start fiddling with the various menus and realise that not all things are where they used to be. The options panel has moved out of the *View* menu to a brand new, custom-built *Tools* menu, for example, and has itself been completely reorganised, with shiny new icons to boot.

In terms of added features, SPIN 0.5 is positively bursting. For programmers, the big attraction is likely to be the in-built assembler *and* debugger - both of which mean very little to me personally, I'm afraid; as I understand it, debuggers in emulators are increasingly common, but assemblers are extremely rare.

On the recording menu there's now an option to record AVI video as well as RZX keyboard/joystick input files. And another new feature allows you to load and save different hardware configurations, so you don't have to keep messing about with different hardware and peripheral settings every time you want to change model. Get your emulated 128 set up with an Interface 1, three microdrives and a ZX Printer, for example; save the configuraton and next time you want to set your virtual stuff up like this it's just a menu option away. I can see this feature appearing on other emulators soon!

There's also support now for the **Cheetah SpecDrum**. And - as discussed way back in ZXF issue 4 - the **Sinclair ZX Interface 1** is supported too. You can load .MDR cartridge files into a maximum of eight emulated ZX Microdrives.

And then there are the features that were present in previous versions only I didn't notice them (highly embarrassing when that happens). Fed up with the icons along the bottom of the main window? Now you can change them! Hover your mouse, right click once and lo! Of particular use is a right click on the reset button in the bottom-right hand corner - this turns the options button (the one with the cogs) into a USR 0 reset button: extremely useful for running all those demos! A left click on the button bar restores the originals.

Version 0.5 was released towards the end of June and, within a couple of weeks, four updates had been released to sort out all the various bugs discovered. Don't forget that the bug-finding process is a necessary part of this sort of software release and it makes complete sense for the community who are going to use the software to take part in it. When you find a bug, therefore, *report it* - but make sure you give as much information as you can. Programmers aren't psychic and few computer setups are alike!

of the game's structure with intro and levels of play. Also interesting is that the plot explanation (text supplied) is likely bigger than the game in Kilobytes and it is offered with amusement :o)

The game is challening (when you look past what looks like over simplification) due to the game device of your bag that you collect TNT in .. or a cat.. and that you have to offload in the van whilst avoiding the enemy, birds and small planes to save your lives.

2004 [NOTE]

The same author has an entry this year that is another game that has something reminisent of old chuncky computer design seen in the old consoles of Atari and pre Atari.

### Kilopede (1K) Jonathan Cauldwell

A competant Centapede-like game within 1K. Excellent use of the system that is not too removed from early Spectrum releases of 20 years ago; yet this is maximised machine code that is smooth and responsive and must be around a tenth of early efforts in K. Not stunning, but impressive and playable. Would have been interesting to see a front screen of some kind, but then again 1K is impressive a task.

AmusementPark 4000 (4K) Jonathan Cauldwell

An impressive and maybe masachistic attempt at achieving something like Theme Park in 4K of RAM on the Spectrum. All the game elements are there, the researching, building the theme park and balancing the ticket prices with the costs of development with lots of little people wandering about. Impressive squeesing of small graphics and environment intelligence that keeps you playing.

2004 [NOTE]

In ZX[F] issue 7 I reviewed the developed version of this that is available on cassette tape or as an emulator file from Cronosoft.co.uk and called FunPark (for 16K Spectrums). Amusement Park 4000 is also discussed in ZX[F] issue 6 for the 2003 event and also from a Spectrum/ Sam show report at the end of last year.

NEW EMULATORS

FUSE

Version 0.7.0; http://fuse-emulator.sourceforge.net/
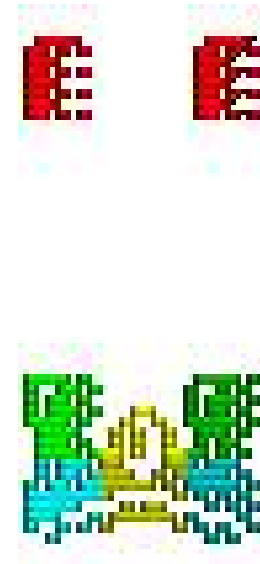
It's quite an embarrassment to me that I'm completely unable to comment on **Fuse** - the Free Unix Spectrum Emulator by the Fuse Team (headed up by **Philip Kendall)**. To say it's an influential emulator is something of an understatement. Aside from the main emulator itself (which has also been ported to MacOS X), an earlier version was ported to the *PocketPC* by **Anders Holmberg** as **PocketClive** and PocketClive itself has been ported to the **Nokia Smartphone**. The Fuse core has also been used at the heart of both **Sprint**, the emulator for the *Peters Plus* **Sprinter**, and **Mike Wynne**'s excellent ZX81 emulator **EightyOne**. Alas, I'm unable to comment on **Fuse** because I don't have a system capable of running it. And looking at the list of features for the latest release of this emulator, it would appear

that the loss is all mine. Check this out:

- Working 16K, 48K, 128K, +2, +2A, +3, +3e, SE, TC2048, TC2068, Pentagon 128 and Scorpion ZS 256 emulation, running at true Speccy speed on any computer you're likely to try it on.

- Support for loading from .tzx files.

- Sound (on systems supporting the Open Sound System, SDL or OpenBSD/Solaris's /dev/audio).

- Kempston joystick emulation.

- Emulation of the various printers you could attach to the Spectrum.

- Support for the RZX input recording file format, including 'competition mode'.

- Emulation of the Spectrum

+3e, ZXATASP and ZXCF IDE interfaces.

Amidst that treasure chest of features, the sharp-eyed amongst you will have spotted some very rare gems. These include TC2048 & 2068 emulation (the European versions of the Timex Sinclair machines), ZXCF/ ZXATASP support (both interfaces by **Sami Vehmaa** - the former is an IDE interface for hard disks or Compact Flash cards, the latter a dedicated Compact Flash interface) and - for the first time ever - **Andrew Owen**'s baby, the **ZX Spectrum SE**.

I guess I should point out at this point that there *is* a rather buggy Win32 port for Windows users, but the functionality of this 'snapshot' is minimal and it therefore mainly serves to remind you of what you're missing out on.

I'm jealous as hell, basically.

EmuZWin

Version 2.5 by Vladimir Kladov; http://bonanzas.rinet.ru/e_downloads.htm

Surely the most frequently updated emulator at the moment, **EmuZWin** continues its development at an alarming speed and currently stands at... (checks WoS) v2.5 Release 2.1 post-FINAL (that's the release *after* the final one, you understand).

Mirroring slightly **SPIN**'s development, version 2.5 includes **Sinclair ZX Interface 1** emulation as well as an assembler amongst the various tools. There have also been improvements made to the Map Builder and the 256 colour GFX Editor

(see the article in issue 7 for more about that feature). And an all-new 'High Quality Magnification' mode smooths out all those pixelated crinkles in the same manner employed by **HighSpec** (and now **RealSpectrum** too, as it happens). If you're into that sort of thing.

Continuing on the theme started in the SPIN review of things I apparently missed in previous versions and only noticed now, EmuZWin has a nifty little progress bar that advances as a tape is played, showing you where you are in the tape. Very handy.

Unlike most other emulators, EmuZWin does not ask you to select any particular model of Spectrum, which can be confusing, particularly when it comes to peripherals. I can turn on both the Interface 1 and the Beta 128 (TR-DOS) interface together, for example (is it possible to do this in 'real life' anyone?), although I don't actually know how to get to the TR-DOS prompt without doing a RANDOMIZE USR 15616 from BASIC. It's obviously a just a different approach to emulation, but it's one that takes a bit of getting used to.

eye on ebay

Mega-tree development disks

Winning bid:	**£207.02**
Ended:	29-Apr-04 16:39:41 BST

As reported last issue, April saw the sale of the **Mega-tree** development disks containing the unfinished work on the sequel to Jet Set Willy by Spectrum legend **Matthew Smith**. These eighteen 5.25 inch disks for the Commodore 64 were finally won by 'randysparks' aka **Retro Gamer** magazine. They are creeping up a lot these days, aren't they? The proceeds of the auction are to be donated to **Cancer Research UK.**

The disks were sold untested and uncopied; seller **Stuart Fotheringham** (one of the original Mega-tree development team) promised bidders that that no copies would be made for the "Spectrum community" (not quite sure why the quotes were necessary), so the worry was for a while that their contents could forever go unknown. **RG**, of course, have been perfectly happy to share their investigation of the disks with their readers. The result? A few sprites, a background screen and a load of copied games. Sweet...

Sam Coupe, boxed & HUGE collection of hardware & discs

Winning bid:	**£303.03**
Ended:	18-Jul-04 20:55:31 BST

A dream come true for SAM fans, this lot comprised the largest collection of Coupe gear I've ever seen on **ebay** and included a 512K SAM with dual disk drives, mouse and interface, 1 MB RAM expansion, comms interface, not to mention some 400 SAM disks. Cheap at twice the price. I can't help but feel, however, that the seller should have described his lot as a 'goldmine' rather than a 'minefield'...
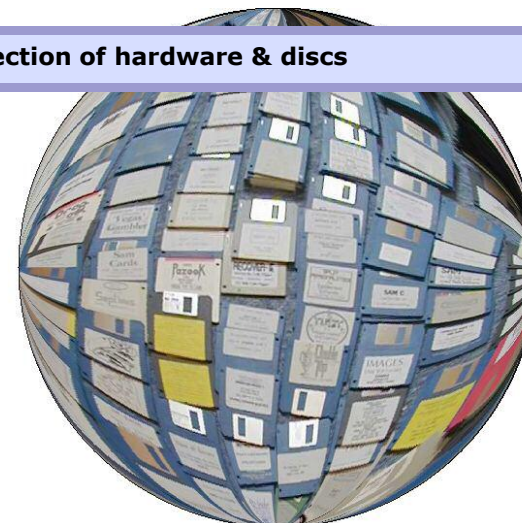
wibble

*What **are** you going on about?*

Send your letters, viewpoints, mini articles, etc to **zxf@cwoodcock.co.uk**, with 'wibble' in the subject line.

FEEDBACK FOR ISSUE 7

Some of the feedback on issue 7, left via ZXF's website feedback form. It's great to get feedback from all around the world. Nice to know also that ZXF is adorning UK bathrooms up and down the land....

An excellent read, as always. I've found the guide to the Plus D particularly useful. Keep up the good work! Best regards Jorge (Spain)

ZXF magazine is like a little ray of light in an otherwise dull world. The articles are well written, the graphics and format are brilliant (it's great that you have gone to the trouble of creating a maga- zine style that is compact). My only fault with the magazine (more so with no 7 than the rest) is that the margins are a little off. Everything printed on the right hand side of the page cold be moved approximately 1cm further to the right (but that could be a combination of my printer and my fussiness). The rest of the magazine is great! Keep up the good work. Stuart (Northern Ireland)

Thanks for yet another great issue if ZXF magazine. I have enjoy reading it. ZX Spectrum is still alive and doing very well. Greetings Hendrik Bezuidenhout (South Africa)

Excelent magazine !!!! Keep up this good work !!! I read it cover to cover!! I hope someday contribute too, with reviews, news or history of the Microdigital TK90X in Brazil. Only one thing I miss: more pages! (Brazil)

I've got all your issues, printed out and kept in the loo, next to some old copies of 2000AD! I found the TR-DOS bit in the last issue interesting. Excellent read, keep it up. (UK)

Thought it was surprisingly good. Haven't fully read it, but was impressed with the amount of stuff in there that I didn't know about - e.g. the public availability of "The Complete Spectrum ROM dissasembly". DTP standard was very good too. Good reading material for the bog! (UK)

First issue I have downloaded after reading about it in Retro Gamer and finding link of WoS. Excellent read and nostalgia for someone still living in the eighties - nothing like playing Jet Set Willy whilst listening to some classic 80's rock music!!! Many thanks. (UK)

Read the article in retro gamer issue four and thought - i will go and download some issues - ended up downloading the lot - what a fantastic idea - i will be donating shortly!

Andy (Age - 33!!!!) - still loves his speccy! (UK)

LETTERS TO ZXF

I just came across your online Spectrum magazine, ZXF, due to reading about it (and your interesting interview) in this months Retro Gamer Magazine.

I downloaded the latest issue and was glued to my monitor for what seemed like hours!!!

I have to congratulate you on the magazine. It is extremely profes- sionally produced, edited and

written and a great read too!!!

Tomorrow, I will look at the older editions and look forward to that...

I was mainly a ZX81 person myself but followed the Spectrum scene closely. These days I find the new emulators fascinating and its good to see the retro scene enjoy its new popularity...

Keep up your great work and I will be visiting the site regularly from now on.

I just have one question I'd like to know the answer to... what Publishing program are you using to put together the magazine?

Best Regards

Steven McDonald

Hi Steve (and other readers from RG, by the way). Glad you like the mag. ZXF is put together on Greenstreet Publisher 3 and converted to PDF format using JAWS PDF Creator 2.

Thank you very much for devoting your time for issuing this great publication! It has given me lots of pleasure. Only one complaint - worse jpeg quality compared to the older issues. But I guess it's to make the file smaller.

Another thing I'd like to add is about colour interlacing in the small insert on page 16. Actually, in Russian programs this feature was used widely and there _is_ a way to eliminate the flicker! The emulator UnrealSpectrum (the best one for Russian programs) has an option called "noflic", which merges that blinking screens together producing new static colours. I even saw one game which utilised this technology in the fullscreen.

Now a couple of words about interlacing. Actually, there are two methods. The first one is con-

nected with Spectrum 128 (and clones), having two screen areas in memory which could be switched. Therefore, a program draws something on one screen, then at another, and then switches between them at a fast pace (combined with updating images to get animation). For this mode there is an emulation method allowing to eliminate flickering - in each concrete moment an emulator shows on actual screen not one of two Spectrum screens, but their mix.

There is an editor for this mode: Double Screen Editor v0.5 by 4D, remix by Alone Coder (http://trd.speccy.cz/system/DBS05 .ZIP). With noflic mode described below it's very useful.

The second method is called 3Color. It allows bigger amount of colours to be used. And, in principle, each pixel could have its own colour in this mode. The theory behind this mode is that any colour could be represented by a weighted sum of 3 base colours: red, green and blue. Therefore, an artist should paint three screens - one completely in red colour, second completely in green and third completely in blue. By correctly placing dots in chosen places, he could create different colour at each 'final' pixel. From combinatorics, we see that 8 colours are possible for ZX. Then, when a program wants to draw this compound picture, it draws these three pictures one after another at a fast pace, therefore we get an impression (combined with hard flickering :) of full-colour picture. Unfortunately, there aren't any methods ready for completely eliminating flickering in this case. Also, creating pictures in this mode by hand is hard, therefore it's often converted from other platforms.

There are editors for this mode:

8 color (3Color) Editor v0.081 by Alone Coder

(http://trd.speccy.cz/system/8COL 0081.ZIP)

Multi Studio 3Color Editor v2.0p by Omega HG

(http://trd.speccy.cz/system/MULTS T20.ZIP)

And here are two albumbs of 3 Color pictures:

http://trd.speccy.cz/sbor/3COLOR 01.ZIP and

http://trd.speccy.cz/sbor/3COLOR 02.ZIP

I want to point out that these two methods are not hardware modifications, they are perfectly possible on any Spectrum.

So, it's possible to eliminate flickering only for the first type of interlacing at the moment. Let's see how it's done. Download UnrealSpeccy emulator (the best one for emulating Russian software) from ftp://ftp.worldofspectrum.org/pub/ sinclair/emulators/pc/russian/us022 b.zip

(you'll also need ROMS:

ftp://ftp.worldofspectrum.org/pub/ sinclair/emulators/pc/russian/usrom z.zip)

Then load some game or demo or whatever which uses interlacing of the first kind.

For example, let's stick with "Otkryvashka" (bottle opener).

Get it from

http://trd.speccy.cz/full_ver/OPENS .ZIP

First, run it with the default configuration. You'll see heavy flickering in the main menu. Let's now eliminate it and enjoy enhanced colours! Press Alt-F1 to

bring configuration window. Then click a "Noflic" checkbox like shown in the figure.

Now you should see that magnifi- cent orange and rose colours. I must add that despite noflic cannot fully eliminate flickering on 3Color pictures, it can reduce it a bit anyway.

Well, there are really a lot of interlacing used in recent Russian Spectrum software, so just check it, in many cases you would be able to use that noflic mode.

Also there is mysterious Flash- Colour mode. I know that it's used somewhere in the "Crime of the Santa Claus: Deja Vu" (http://trd.speccy.cz/full_ver/CSC_ DV.ZIP), but I can't bring it in. I just know it's a small hardware modification which allows to use FLASH attribute of each character cell somehow for enhancing colours.

Bye!

Ilya A. Palopezhentsev

Interesting interlace information. Thanks Ilya. The picture albums, by the way, contain some amazing visuals. Unreal Speccy is pretty much refusing to work on my system at the moment so I had to make do with Spectaculator. Dealing with interlacing doesn't appear to be one of Spectaculator's strong points (to get the best results turn 'Mimic TV Screen' off from the View menu and reduce the zoom to 100%), but even so it managed it just enough to give an idea of what the fully interlaced image would look like. Very clever - definately worth checking out of a lazy afternoon. A bit raunchy too in places - if that helps!

Hello Editor

I'm Chris Coxall and I run the